

# California Postsecondary Education Commission

## Improving Teacher Quality State Grants Program

### Project Description

Project Title	K-2 STARTS: Science and Technology Assistance for Rural Teachers and Small Districts		
Grant Amount: \$991,948	Grant Period: 2007-2011		
Grade Level: K-2	Subject Matter: Science		
Institute of Higher Education	<input type="checkbox"/> University of the Pacific		
Local Education	<input type="checkbox"/> New Hope School District on behalf of 16 Rural Districts		
Additional Partners:	<input type="checkbox"/> San Joaquin County Office of Education; Merced County Office of Education		
Need for Project/ Population To Be Served:	<p>NEED -- Three features of target schools highlight the need for this project -- 1) Each of the districts has a substantial population of low income learners and families, and 5 of the 16 are on CPEC's "high need" list. 2) Academic achievement in target districts is also low. Recent STAR score reports indicate that, across the 16 districts, an average of 32% of second graders scored proficient in mathematics; 27% scored proficient in English Language Arts; and 27% scored proficient in science. 3) Teacher preparation/support is an issue in target districts. A majority of schools within the target districts (16 out of 21) do not have a fully credentialed teaching staff. Even credentialed teachers report they are "under prepared" to teach science. TARGET POPULATION - This grant will serve K-2 learners and teachers in 21 schools in 16 rural school districts in San Joaquin County, Merced, Stanislaus, and Toulumne County.</p>		
Project Goals:	<p>OVERARCHING GOAL - By 2011, students in 35 Kindergarten- Grade 2 classes whose teachers participate in K-2 STARTS, will show improvement in their English language arts, mathematics and science achievement through an increase in inquiry -guided, standards based, English language and mathematics infused science instruction. SPECIFIC OBJECTIVES - In order to accomplish this goal, teachers in the 35 classrooms will:</p> <ol style="list-style-type: none"> <li>1) Increase their science content knowledge and pedagogical content knowledge so as to more effectively teach the California Academic Science Standards at their specific grade level as they implement the adopted materials selected for their school sites.</li> <li>2) Access information, resources, and network with grade level teachers from their own and other rural schools through the effective utilization of technology to collaborate and improve their science teaching.</li> <li>3) Employ research based strategies for teaching science to effectively serve their linguistically and ethnically diverse population.</li> <li>4) Improve teacher skills related to English language arts and mathematics skills for integration into science lessons with specific attention to learning how to improve writing skills by using science notebooks</li> </ol>		
Summary of Activities:	<p>ACTIVITIES/PROFESSIONAL DEVELOPMENT FOR ALL PROJECT PARTICIPANTS -1) Intensive university based Summer Institutes (1 week/ 42 hours) 2) Regional Institutes (3 full day/3 evening/30 hours) during the academic year; 3) Additional School Site "Workshops" led by teacher leaders (8 hours annually);4) Classroom follow-up/mentoring, coaching, shared work on model units (24 hours annually). These will focus on linking science content to CA science standards, the development of inquiry based science instruction, the infusion of English language learning and mathematics instruction, the construction of coherent "curriculum maps," and the use of student notebooks as an instructional and assessment tool. ADDITIONAL ACTIVITIES/ PROFESSIONAL DEVELOPMENT FOR TEACHER LEADERS - 1) 2 day summer leadership institute (16 hours); 2) One release day for additional planning and review during the academic year (8 hours) 3) Two meetings annually for additional planning and support (6 hours); 4) Dedicated time to facilitate construction and review of school specific units/ products (5 hours)</p>		

Outcomes Expected:	<p>□ EXPECTED OUTCOMES include: 1) Learners in target classrooms will demonstrate improved achievement in science (as compared to learners in comparison classrooms and measured by standardized and classroom based assessments); 2) Learners in target classrooms will demonstrate improved achievement in English/language arts and mathematics (as compared to learners in comparison classrooms and measured by standardized and classroom based assessments); 3) Project teachers will demonstrate content knowledge in physical, earth, and life science (as compared to non-project teachers and measured by pre-post assessments, classroom observations, etc. 4) Project teachers will demonstrate enhanced ability to design/deliver inquiry guided, standards based, language arts and math infused instruction ( assessed by observations, qualitative assessments of products, etc. 5) Project teachers will demonstrate enhanced sense of efficacy in teaching inquiry guided, standards based, language arts and math infused instruction (as compared to comparison teachers and measured by surveys, interviews, etc.) 6) Project classrooms and grade levels will manifest enhanced opportunities to learn in science (as compared to comparison sites and measured by administrator/teacher surveys, etc. 7) Teacher leaders will demonstrate enhanced capacity for instructional leadership (as assessed by interviews, surveys, etc.).</p>		
Teachers Served	app. 35	Students Served	700/annually (Some students will be in project classrooms for more than one year. We estimate that approximately 1500-1900 will be served during the life of the project.)
Project Website: Under construction will be available through <a href="http://www.sjcoe.org/K2STARTS">www.sjcoe.org/K2STARTS</a>			
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